UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,069	01/23/2004	Edward M. Barton	SJO920030084US1	8002

31070 7590 02/15/2006

TIMOTHY N. ELLIS, PATENT ATTORNEY
8680 VIA MALLORCA, SUITE D
LA JOLLA, CA 92037

EXAMINER	
PATEL, HETUL B	

ART UNIT	PAPER NUMBER
2186	

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/764,069	BARTON ET AL.	
	Examiner	Art Unit	
	Hetul Patel	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/23/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 are presented for examination.

2. The IDS filed on 01/23/2004 has been received and carefully considered.

Claim Objections

3. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The limitation "performing at least a part of the task" of claim 4 is already claimed in the parent/independent claim 1. Therefore, the dependent claim 4 is not further limiting the independent claim 1.

Claim Rejections - 35 USC § 101

4. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-20 are not limited to tangible embodiments. In view of applicants' disclosure, specification page 9, paragraph [0022], the signal bearing medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., disc or disk, for example, a CD-ROM, CD-R, CD-RW, WORM, DVD-R, DVD+R, DVD-RW, or DVD+RW, a "hard drive", a RAID array, a RAMAC, a magnetic data storage diskette (such as a floppy disk), magnetic tape, digital optical tape, RAM, ROM, EPROM, EEPROM, flash memory,

programmable logic, any other type of firmware, magneto-optical storage, paper punch cards) and intangible embodiments (e.g. transmission media such as digital and/or analog communications links, which may be electrical, optical, and/or wireless, a network transmission line, wireless transmission media, signals propagating through space, radio waves, and/or infrared signals). Claims 1-20 discloses "A signal bearing medium tangibly embodying a program of machine-readable instruction ...". As discussed above, the signal bearing medium can be intangible; and when it is intangible, the phrase "A signal bearing medium tangibly embodying a program of machine-readable instruction ..." also becomes intangible. As such, these claims are not limited to statutory subject matter and are therefore non-statutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8 and 12-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Berkowitz et al. (USPN: 6,910,112) hereinafter, Berkowitz.

As per claims 1 and 4, Berkowitz teaches a signal bearing medium tangibly embodying a program of machine-readable instructions executable by a digital

processing apparatus to perform a method for ensuring consistency of a group of data objects, the method comprising the following operations receiving a first list (i.e. the metadata document) that identifies objects in the group (i.e. the components of the application); gathering, for at least one attribute (i.e. the metadata), the value of the attribute for each object identified in the first list; storing the first list that identifies objects, and the attribute values gathered in the gathering operation, to create a first snapshot (i.e. the metadata document) of the first list that identifies objects and the gathered attribute values; receiving a second list that identifies objects that are in the group after at least part of a task is performed (i.e. after the backup procedure finishes), and the value after at least part of the task is performed of the at least one attribute for each object identified in the second list; storing the second list that identifies objects, and the received attribute values, to create a second snapshot of the second list that identifies objects and the received attribute values; and comparing the first snapshot with the second snapshot (i.e. by setting flags indicating success for each components) (e.g. see Col. 2, lines 8-28).

As per claims 21, 26 and 27, see arguments with respect to the rejection of claim 1. Claim 21, 26 and 27 are also rejected based on the same rationale as the rejection of claim 1.

As per claim 2, Berkowitz teaches the claimed invention as described above and furthermore teaches the step of failing the task if the first snapshot and the second snapshot are not the same (e.g. see Col. 10, lines 23-35).

As per claim 22, see arguments with respect to the rejection of claim 2. Claim 22 is also rejected based on the same rationale as the rejection of claim 2.

As per claim 24, see arguments with respect to the rejection of claim 4. Claim 24 is also rejected based on the same rationale as the rejection of claim 4.

As per claim 28, see arguments with respect to the rejection of claims 2 and 4. Claim 28 is also rejected based on the same rationale as the rejection of claims 2 and 4.

As per claims 3 and 8, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the comparing and failing operations comprise: determining if all of the objects (i.e. components) identified in the first list (i.e. the metadata document) are identified in the second list (i.e. the modified metadata document in which flags are set indicating success for each components) and if all of the objects identified in the second list are identified in the first list; and if not, failing the task (i.e. the backup procedure is not successful); and if so, determining if the value of the at least one attribute for each object identified in the first list is the same as the value of the at least one attribute for the same object identified in the second list, and if not, failing the task; and if so, committing the task (i.e. the backup procedure is successful) (e.g. see Col. 2, lines 8-28).

As per claim 19, 23 and 29, see arguments with respect to the rejection of claim 3. Claims 19, 23 and 29 are also rejected based on the same rationale as the rejection of claim 3.

As per claim 20, see arguments with respect to the rejection of claims 1-3. Claim 20 is also rejected based on the same rationale as the rejection of claims 1-3.

As per claim 5, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the task comprises backing up the objects identified in the first list (i.e. the metadata document) (e.g. see Col. 2, lines 8-28).

As per claims 6 and 7, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the operation of performing at least part of the task comprises transmitting the objects identified in the first list from at least one client (i.e. 219 in Fig. 2) to a backup storage server (i.e. 230 in Fig. 2) (e.g. see Col. 10, lines 45+ and Fig. 2).

As per claim 12, Berkowitz teaches the claimed invention as described above. As defined in the specification of the current application, "Cross transaction object grouping" is a grouping mechanism by which a client can define and manipulate multiple separate objects as one logical entity (called a logical object group). Berkowitz also teaches about manipulating multiple separate objects (i.e. group of files or resources that handle together) as one logical entity (e.g. see Col. 2, lines 13-18 and Col. 6, lines 7-13). Therefore, Berkowitz does teach that the group is a Cross Transaction Logical Object Group as claimed.

As per claim 13, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the first snapshot corresponds with a time t1, and the second snapshot corresponds with a time t2, wherein t1 is before t2 (i.e. the metadata document is created before the modified metadata document in which flags are set indicating success for each components) (e.g. see Col. 2, lines 8-28).

As per claim 14, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the operation of receiving a first list that identifies objects in the group (i.e. the components of the application) comprises generating the first list (i.e. generating the metadata document) (e.g. see Col. 2, lines 13+).

As per claim 15, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the step of generating the first list comprises scanning a subset of a filesystem's directories (i.e. to determine which files an resources are to be treated as a component) (e.g. see Col. 2, lines 13+).

As per claim 16, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the step of generating the first list (i.e. the metadata document of the original volume 219 in Fig. 2) comprises scanning at least one directory on each of a plurality of clients (i.e. other computing devices on network, 118 in Fig. 1) (e.g. see Figs. 1-2).

As per claim 17, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the operation of receiving a second list that identifies objects in the group after at least part of the task is performed comprises generating the second list (i.e. generating the modified metadata document in which flags are set indicating success for each components) (e.g. see Col. 2, lines 8-28).

As per claim 18, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the step of generating the second list comprises scanning a subset of a filesystem's directories (i.e. scanning each

component of the backup document and each component includes files and resources. Therefore, it is scanning a subset of the filesystem's directories as claimed after the backup procedure ends) (e.g. see Col. 2, lines 8-28).

As per claims 25 and 30, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the operation of receiving a first list that identifies objects in the group (i.e. the components of the application) comprises generating the first list (i.e. the metadata document), and the operation of receiving a second list that identifies objects in the group after at least part of the task is performed (i.e. the after the backup procedure finishes) comprises generating the second list (i.e. the modified metadata document in which flags are set indicating success for each components); and wherein the task comprises backing up the objects identified in the first list (e.g. see Col. 2, lines 8-28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berkowitz.

As per claim 9, Berkowitz teaches the claimed invention as described above but does not clearly disclose that the operation of failing the task comprises rolling back at

least one commit by the server. However, it was well-known and notorious old in the art at the time of current invention was made that whenever the backup procedure fails to backup some of the components, the backup procedure rolling back at least one commit by the server (i.e. backing up the failed component again). In doing so, whenever the backup procedure fails to backup some of the components, there is no need to repeat the backup procedure for whole list again and as a result of it, both the time to backup and resources are saved. The Examiner herein taking Official Notice on this subject matter.

As per claims 10 and 11, Berkowitz teaches the claimed invention as described above and furthermore, Berkowitz teaches that the task comprises performing the backup operation. It would have been obvious to one ordinary skilled in the art at the time of the current invention was made to apply the method taught by Berkowitz in not only the backup operation but also other operations such as performing an installation, a query etc. In doing so, the data consistency of components, before and after performing such tasks/operations, can be ensured. Therefore, it is being advantageous.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hetul Patel whose telephone number is 571-272-4184. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HBP
HBP

MATTHEW D. ANDERSON
PRIMARY EXAMINER